

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
17 March 2005 (17.03.2005)

PCT

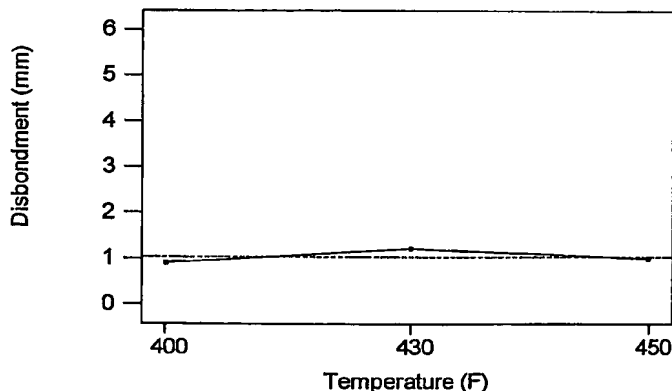
(10) International Publication Number
WO 2005/023941 A1

- (51) International Patent Classification⁷: **C09D 5/03**, 163/00, C08G 59/64, C09D 5/08
- (21) International Application Number: PCT/US2004/028921
- (22) International Filing Date: 3 September 2004 (03.09.2004)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data: 60/500,415 5 September 2003 (05.09.2003) US
- (71) Applicant (for all designated States except US): **E.I. DUPONT DE NEMOURS AND COMPANY** [US/US]; 1007 MARKET STREET, WILMINGTON, Delaware 19898 (US).
- (72) Inventors; and
- (75) Inventors/Applicants (for US only): **EDMONDSON, Stephen, J.** [GB/US]; 8206 Cross Springs Court, Houston, Texas 77095 (US). **MARX, Edward, J.** [US/US]; 3918 Windswept Drive, Montgomery, Texas 77356 (US).
- (74) Agent: **BENJAMIN, Steven, C.**; E. I. DU PONT DE NEMOURS AND COMPANY, LEGAL PATENT RECORDS CENTER, 4417 Lancaster Pike, Wilmington, Delaware 19805 (US).
- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).
- Published:
— with international search report

[Continued on next page]

(54) Title: CURABLE ALKANOLAMINE-CONTAINING EPOXY POWDER COATING COMPOSITION

Effect of Application Temperatures on the Example 4 Alkanolamine Containing Coating Composition



(57) Abstract: The present invention provides a curable alkanolamine containing epoxy powder coating composition comprising at least one epoxy resin, at least one alkanolamine, a curing agent in an amount effective to cure the coating and optionally at least one zinc borate compound. Further, the present invention provides a method of cathode corrosion protection which includes the steps of subjecting a metal substrate to a mechanical treatment, applying the curable alkanolamine containing epoxy powder coating composition to the surface of the metal substrate, and polarizing the coated material as a cathode. The present invention also relates to a process for making and applying the alkanolamine containing epoxy powder coating

compositions of the present invention.

WO 2005/023941 A1



— *before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments*

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.